



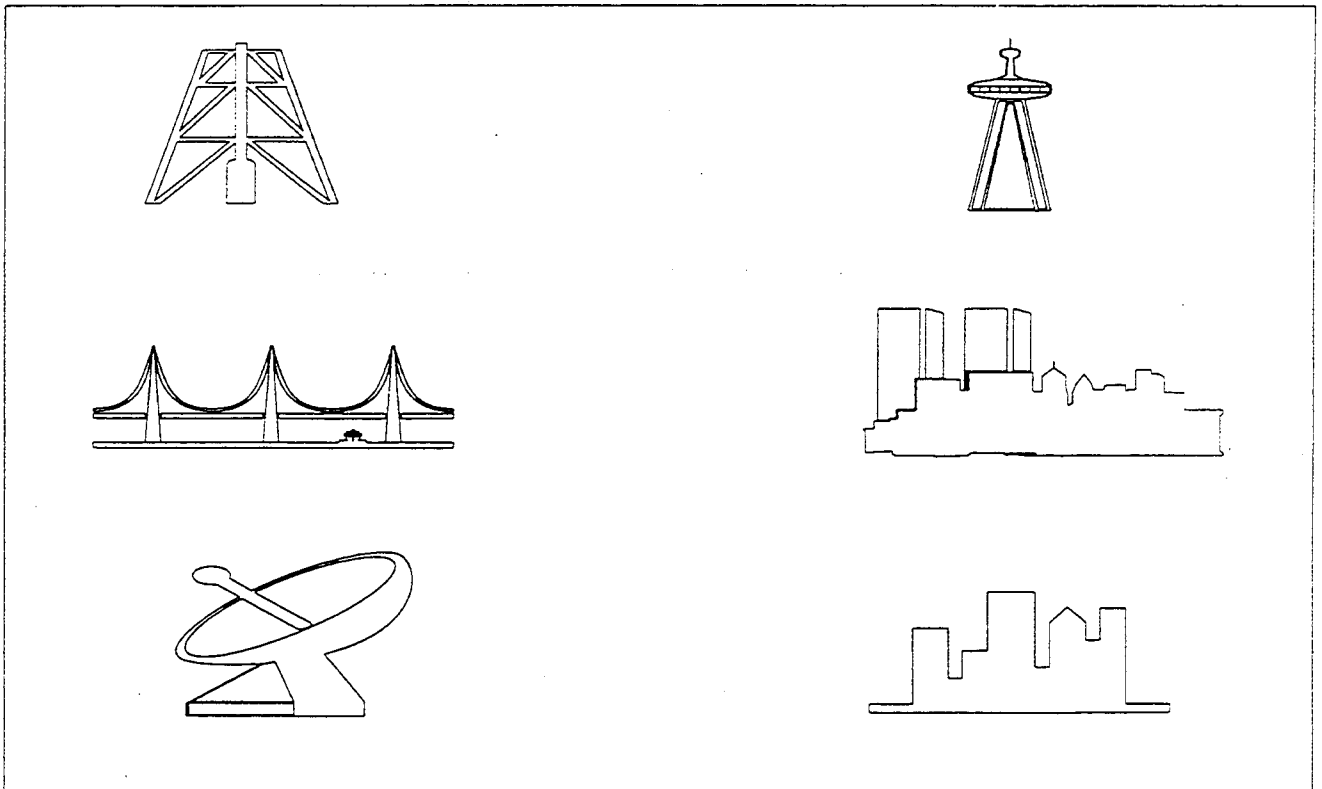
U.S. Department
of Transportation

**Federal Aviation
Administration**

ADVISORY CIRCULAR

AC 70/7460-2J

Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace





U.S. Department
of Transportation

**Federal Aviation
Administration**

ADVISORY CIRCULAR

Subject: PROPOSED CONSTRUCTION OR
ALTERATION OF OBJECTS THAT MAY
AFFECT THE NAVIGABLE AIRSPACE

Date: 11/29/95

AC No: 70/7460-2J

Initiated by: ATP-240

1. PURPOSE.

This Advisory Circular provides information to persons proposing to erect or alter an object that may affect the navigable airspace. It explains the need to notify the Federal Aviation Administration (FAA) before construction begins and FAA's response to these notices as required by Title 14 of the Code of Federal Regulations 14 CFR Part 77, Objects Affecting Navigable Airspace.

2. CANCELLATION.

AC 70/7460-2I, Proposed Construction or Alteration of Objects That May Affect the Navigable Airspace, dated November 3, 1988, is cancelled.

3. BACKGROUND.

a. 49 U.S.C. Section 44718 states, in pertinent part, that "The Secretary of Transportation shall require a person to give adequate public notice...of the construction or alteration, establishment or extension, or the proposed construction, alteration, establishment, or expansion, of any structure...when the notice will promote:

1. safety in air commerce, and
2. the efficient use and preservation of the navigable airspace and of airport traffic capacity at public-use airports."

b. To this end, 14 CFR Part 77 was issued prescribing notice to the Administrator of certain proposed construction or alteration.

4. EFFECTIVE DATE. This advisory circular becomes effective January 1, 1996.

5. WHY THIS NOTICE IS REQUIRED.

In administering 14 CFR Part 77, the prime objectives of the FAA are to promote air safety and the efficient use of the navigable airspace. The FAA recognizes that

there are varied demands for the use of airspace, both by aviation and nonaviation interests. When conflicts arise out of construction proposals, the FAA emphasizes the need for conserving the navigable airspace. Therefore, early notice of proposed construction or alteration provides the FAA the opportunity to:

- a. Recognize potential aeronautical hazards to minimize the adverse effects to aviation.
- b. Revise published data or issue Notices to Airmen (NOTAM) to alert pilots to airspace changes made as a result of the structure.
- c. Recommend appropriate marking and lighting to make such objects visible to pilots. The FAA strongly recommends that proponents become familiar with the different types of lighting systems and to request specifically the type of system desired when submitting FAA Form 7460-1, Notice of Proposed Construction or Alteration. Information about these systems can be found in Advisory Circulars listed in Chapter 13, Marking and Lighting Equipment and Information. Information should also be obtained from the manufacturers. Proponents can then determine which system best meets their needs based on purchase, installation, and maintenance costs. The type of system desired should then be requested in item 2.D. of FAA Form 7460-1. The FAA will make every effort to accommodate the request.
- d. Depict obstacles on aeronautical charts for pilotage and safety.

6. WHO MUST FILE NOTICE.

Any person or their agent who intends to sponsor construction is required to submit notice to the Administrator if the proposed construction or alteration falls within any of the following categories:

- a. *Greater than 200 feet in height.* The proposed object would be more than 200 feet above ground level (AGL) at its location.

NOTE-
See FIG 1 and FIG 2.

Greater Than 200 Feet AGL at Object's Location [Over Land]

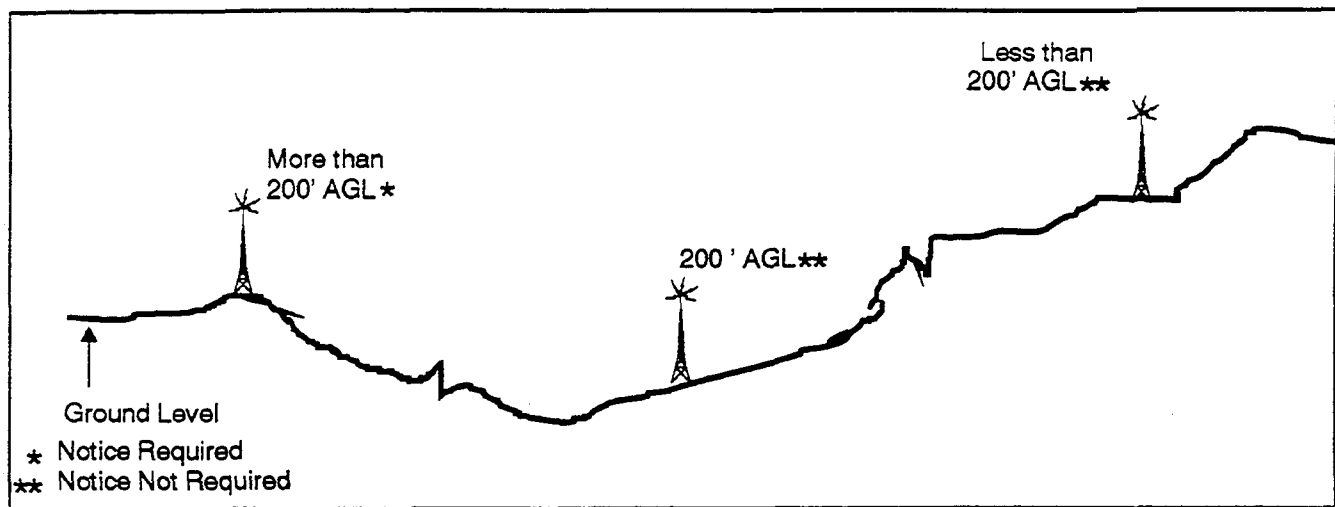


FIG 1

Greater Than 200 Feet AGL at Object's Location [Over Water]

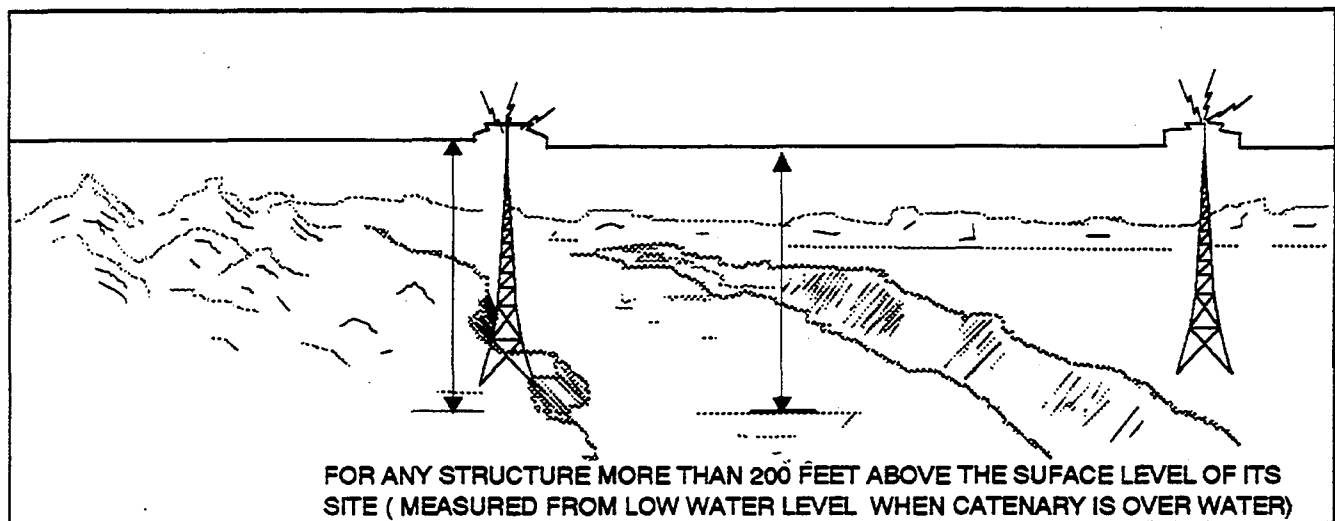


FIG 2

b. Near a Public-Use or Military Airport, Heliport, or Seaplane Base. A public use airport, heliport, or a visually marked seaplane base that is listed in the current Airport Facility Directory, the Alaska Supplement or the Pacific Chart Supplement, or near an airport operated by an armed force of the United States.

1. Airport or Seaplane Base. The proposed object or alteration would be within:

(a) 20,000 feet of an airport or seaplane base with at least one runway more than 3,200 feet in length and the object would exceed a slope of 100:1 horizontally (100 feet horizontally for each 1 foot vertically) from the nearest point of the nearest runway.

(b) 10,000 feet of an airport or seaplane base having no runway more than 3,200 feet in length and the object would exceed a 50:1 horizontal slope (50 feet horizontally for each 1 foot vertically) from the nearest point of the nearest runway.

NOTE-
See FIG 3.

2. Heliport. The proposed object would be within 5,000 feet of a heliport and would exceed a 25:1 horizontal slope (25 feet horizontally for each 1 foot vertically) from the nearest landing and takeoff area of that heliport.

NOTE-
See FIG 4.

Object Penetrates Airport/Seaplane Base Surface

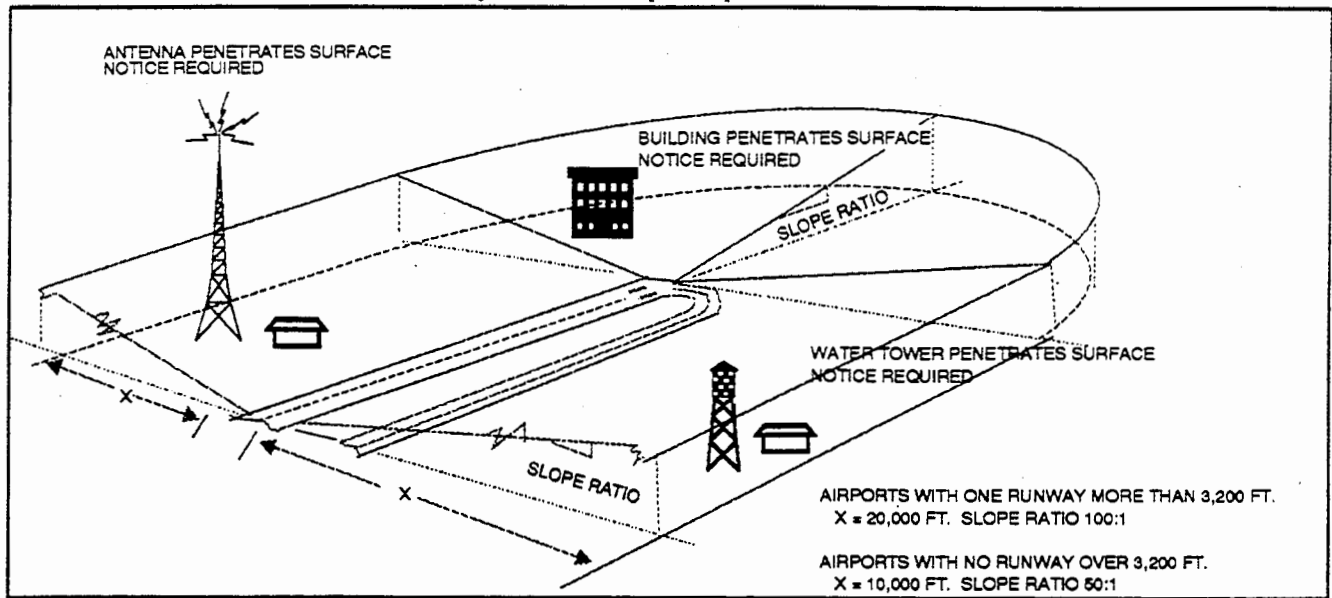


FIG 3

Object Penetrates Heliport Surface

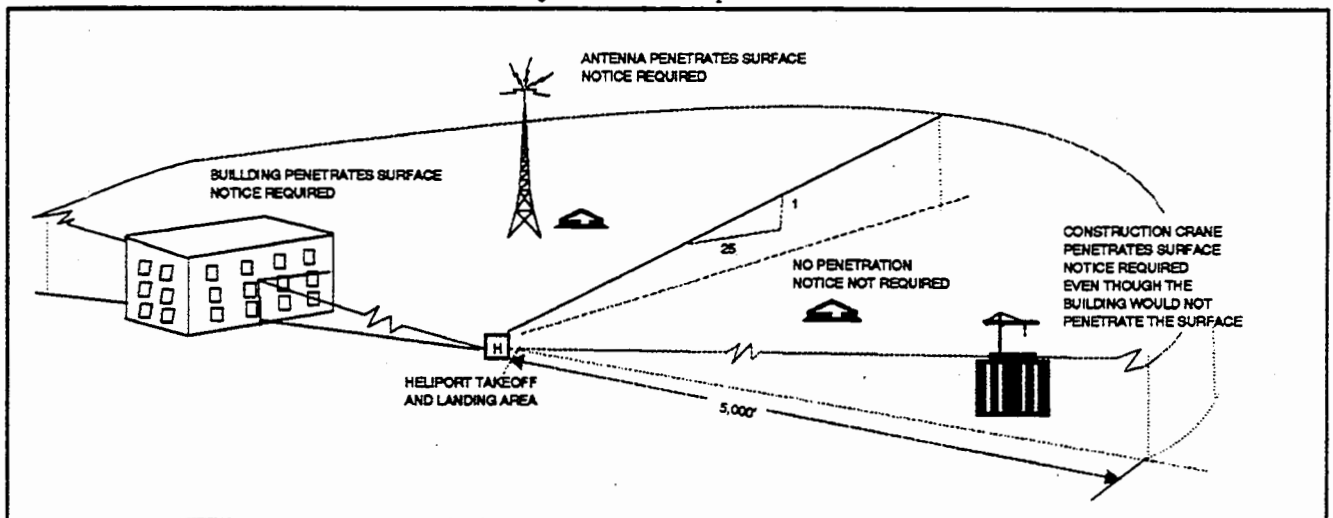


FIG 4

c. *Highways and Railroads.* The proposed object is a traverse way which would exceed one or more of the standards listed in paragraphs a. and b. , above, after the height of the object is adjusted upward as follows:

1. Interstate Highways: 17 feet.
2. Other public roadways: 15 feet.
3. Private road: 10 feet, or the height of the highest mobile object that would traverse the roadway, whichever is greater.
4. Railroad: 23 feet.

5. Waterway or any other thoroughfare not previously mentioned: an amount equal to the highest mobile object that would traverse the waterway or thoroughfare.

NOTE—
See FIG 5.

d. *Objects on a Public Use or Military Airport or Heliport.* The proposed construction or alteration would be on an airport or heliport, or any airport operated by an armed force of the United States, regardless of height or location.

e. *When Requested by the FAA.* The FAA may request notice if available information indicates the proposal

may exceed an obstruction standard or it is suspected the proposal may cause electromagnetic interference to aircraft, particularly construction associated with an AM, FM, or TV station including a change in authorized frequency or transmitting power, may cause transmitted signals to be reflected upon ground-based

or airborne air navigation communications equipment, or affect instrument procedures. In addition, notice may be requested when an air traffic control procedure may be affected, may obstruct air traffic controllers line of sight capability, or may affect air traffic control radar.

Proposed Object is a Traverse Way

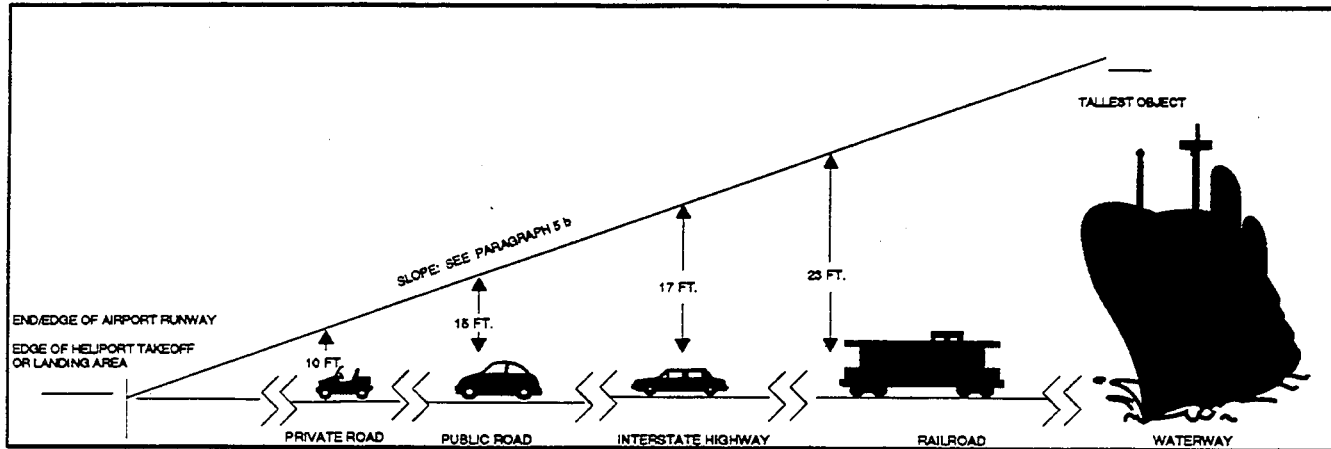


FIG 5

7. KIND OF OBJECTS.

The following are examples of structures requiring notice to the FAA.

a. Proposed construction or alteration of structures such as:

1. Buildings.
2. Towers.
3. Roadways.
4. Overhead communications and transmissions lines as well as the height of the supporting structures

5. Water towers and the supporting structure.

b. Construction equipment or other temporary structures such as:

1. Cranes.
2. Derricks.
3. Stockpiles of equipment.
4. Earth moving equipment.

8. WHEN NOTICE MUST BE FILED.

Notice must be submitted:

- a. At least 30 days before the earlier of the following:**

1. The date the proposed construction or alteration is to begin, or

2. The date the application for a construction permit will be filed.

b. On or before the date the application for construction is filed with the Federal Communications Commission (FCC), if the proposed structure is subject to FCC licensing requirements.

c. Immediately by telephone or other expeditious means to the nearest Flight Service Station (FSS), with written notification submitted within 5 days thereafter, if immediate construction or alteration is required as in cases involving public services, health or safety.

- d. As early as possible in the planning stage but not less than 30 days before construction will begin.**

9. PENALTY FOR FAILING TO PROVIDE NOTICE.

Persons who knowingly and willfully violate the notice requirements of 14 CFR Part 77 are subject to a civil penalty.

10. HOW AND WHERE TO FILE NOTICE.

Notification should be made on FAA Form 7460-1. Additional information such as charts and/or drawings which accurately depict the proposed construction or alteration should be included to facilitate the FAA's analysis of the project. (See Appendix 1). The

completed form should be mailed to the Manager, Air Traffic Division, at the regional office having jurisdiction over the area within which the construction or alteration will occur. The geographic area of jurisdiction, appropriate mailing address and telephone number is listed on FAA Form 7460-1 and below.

Alaskan Region

(AK)

Alaskan Regional Office
Air Traffic Division, AAL-530
222 West 7th Avenue
Anchorage, AK 99513
Telephone: 907-271-5893
FAX: 907-271-2850

Mailing Address:

Federal Aviation Administration
Alaskan Regional Office
Air Traffic Division, AAL-530
222 West 7th Avenue, Box 14
Anchorage, AK 99513-7587

Central Region

(IA, KS, MO, NE)

Central Regional Office
Air Traffic Division, ACE-530
601 East 12th Street
Kansas City, MO 64106
Telephone: 816-426-3408
FAX: 816-426-2302

Eastern Region

(DC, DE, MD, NJ, NY, PA, VA, WV)

Eastern Regional Office
Air Traffic Division, AEA-530
JFK International Airport
Fitzgerald Federal Building
Jamaica, NY 11430
Telephone: 718-553-4531
FAX: 718-995-5687

Great Lakes Region

(IL, IN, MI, MN, ND, OH, SD, WI)

Great Lakes Regional Office
Air Traffic Division, AGL-530
2300 East Devon Avenue
Des Plaines, IL 60018
Telephone: 847-294-7568
FAX: 847-294-7457

New England Region

(CT, MA, ME, NH, RI, VT)

New England Regional Office
Air Traffic Division, ANE-530
12 New England Executive Park
Burlington, MA 01803
Telephone: 617-238-7538
FAX: 617-238-7560

Northwest Mountain Region

(CO, ID, MT, OR, UT, WA, WY)

Northwest Mountain Regional Office
Air Traffic Division, ANM-530
1601 Lind Avenue, SW
Renton, WA 98055-4056
Telephone: 206-227-2530
FAX: 206-227-1534

Southern Region

(AL, FL, GA, KY, MS, NC, PR, SC, TN, VA)

Southern Regional Office
Air Traffic Division, ASO-530
1701 Columbia Avenue
College Park, GA 30337
Telephone: 404-305-5585
FAX: 404-305-5572

Mailing Address:

Federal Aviation Administration
Southern Regional Office
Air Traffic Division, ASO-530
P.O. Box 20636
Atlanta, GA 30320

Southwest Region**(AR, LA, OK, NM, TX)**

Southwest Regional Office
 Air Traffic Division, ASW-530
 2601 Meacham Boulevard
 Fort Worth, TX 76137
 Telephone: 817-222-5534
 FAX: 817-222-5981

Mailing Address:

Department of Transportation
 Federal Aviation Administration
 Fort Worth, TX 76193-0530

Western-Pacific Region**(AZ, CA, HI, NV, Pacific Islands)**

Western-Pacific Regional Office
 Air Traffic Division, AWP-530
 15000 Aviation Boulevard
 Hawthorne, CA 90260
 Telephone: 310-725-1180
 FAX: 310-725-1645

Mailing Address:

Federal Aviation Administration
 AWP-530
 P.O. Box 92007
 Worldway Postal Center
 Los Angeles, CA 90009

11. WHAT THE FAA DOES WITH THE NOTICE.

a. The FAA will acknowledge receipt of the notice by one of the following methods:

1. A copy of the FAA Form 7460-1 is returned annotated to reflect that the proposal "is not identified as an obstruction...and would not be a hazard to air navigation" or notice was not required.

2. FAA Form 7460-7, Acknowledgment of Notice of Proposed Construction or Alteration, may be issued to indicate:

(a) The proposal is not identified as an obstruction and would not be a hazard to air navigation, or

(b) The proposal is presumed to be a hazard to air navigation pending further study. When this is indicated, the acknowledgment will either specify that the FAA has initiated further study, or the proponent may request further study, in which event, the FAA will begin the study when the proponent so advises.

(c) Notice was not required for this proposal.

b. The FAA acknowledges each notice after initial screening. The outcome of this screening may result in an acknowledgment that the structure would be an obstruction and if the proponent would lower to a specified height it would not be an obstruction. The acknowledgment may also offer the proponent the opportunity to request, within 30 days, further aeronautical study. If further aeronautical study is initiated, circular notices on FAA Form 7460-8, Aeronautical Study of Proposed Construction or Alteration, may be prepared and distributed for comments to those agencies, organizations, or individuals with known aeronautical interests to determine if the proposal would be a hazard to air navigation. State and local aviation authorities, as well as various military organizations of the Department of Defense, are also offered the opportunity to comment on the aeronautical effects of the proposal.

c. All responses received by the end of the specified comment period are analyzed by the FAA regional specialists for valid aeronautical comments and objections.

d. The office conducting the study may decide to conduct an informal airspace meeting with interested parties to discuss the effects of the proposal and to gather additional facts or information relevant to the study.

e. The FAA specialists may negotiate with the proponent during the study process to resolve any adverse effect(s) on aeronautical operations. Many times, a minor reduction in height and/or relocation of a proposed structure will eliminate or sufficiently minimize adverse aeronautical effects that would permit the early issuance of a Determination of No Hazard to Air Navigation.

f. After the aeronautical study is completed, the regional office will normally issue a:

1. Determination of Hazard to Air Navigation; or
2. Determination of No Hazard to Air Navigation.

12. ASSISTANCE TO CONSTRUCTION PROPONENTS.

a. Airspace specialists are available in each regional office for assistance. Proponents are encouraged to call in advance for appointments. Limited resources often prevent the specialist from responding spontaneously without advanced planning or preparation.

b. Airspace specialists also recommend that, for timely determinations, construction proponents should submit complete and accurate data. United States Geological Survey quadrangle maps are available at nominal costs to aid in determining the geographical coordinates (latitude/longitude) and site elevation above mean sea level. The latitude/longitude information should be submitted in North American Datum of 1983. The quadrangle maps can be obtained from:

U.S. Geological Survey
Reston, Virginia 22092
Telephone: (703) 860-6045

U.S. Geological Survey
District Branch
P.O. Box 25286, Bldg #41
Denver, Colorado 80225
Telephone: (303) 844-4169

c. Airport planners are available for assistance with construction proposals on Federally obligated airports.

d. Proposals for electronic transmitting devices should include frequency, effective radiated power (ERP), radiation center height (RCAMSL), and antenna characteristics such as number of bays, beam tilt, and null fill.

13. ASSOCIATED PUBLICATIONS.

The following publications contain obstruction criteria, marking and lighting standards and specifications for lighting and paint.

a. *Federal Aviation Regulations 14 CFR Part 77, Objects Affecting Navigable Airspace.* This part sets forth the requirements for notice to the FAA of proposed construction or alteration and provides standards for determining obstructions to navigable airspace. 14 CFR Part 77 (Stock No. 050-007-00276-9) may be ordered from:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

b. *Advisory Circulars.* FAA advisory circulars are available free of charge from:

Department of Transportation
Utilization and Storage Section
(Publications) M443.2
400 7th Street, SW
Washington, DC 20591

1. *AC 70/7460-1, Obstruction Marking and Lighting,* describes the standards for marking and lighting structures such as buildings, chimneys, antenna towers, cooling towers, storage tanks, supporting structures of overhead wires, etc.

2. *AC 150/5190-4, A Model Zoning Ordinance to Limit Height of Objects Around Airports,* provides a model zoning ordinance to be used as a guide to control the height of objects around airports.

3. *AC 150/5300-13, Airport Design,* includes planning information on electronic and visual navigational aids and air traffic control facility siting and clearance requirements that influence the physical layout of airports.

4. *AC 150/5345-43, Specification for Obstruction Lighting Equipment,* contains specifications for equipment used in obstruction lighting systems.

5. *AC 150/5345-53, Airport Equipment Certification Program,* lists equipment model numbers demonstrated to be in compliance with item 4., above, and the manufacturers' names and addresses.

c. *Marking Specifications and Standards.* Aviation colors and paint should conform with the following standards and specifications which are available from:

General Services Administration
 Specifications Section
 470 L'Enfant Plaza, Suite 8100
 Washington, DC 20407

1. Federal Standard Number 595, Color Guide, Ready Mixed Paint.

(a) Orange Number 12197

(b) White Number 17875

(c) Yellow Number 13538

2. Federal Specification T1-P-59, Aviation Surface Paint, Ready Mixed, International Orange.

3. Federal Specification T1-102, Aviation Surface Paint, Oil Titanium Lead-Zinc and Oil, Exterior, Ready Mixed, White and Light Tints.

d. *FAA Forms.* FAA forms are available free of charge from all FAA regional offices.

1. FAA Form 7460-1, Notice of Proposed Construction or Alteration, is used to notify the FAA of proposed construction or alteration of an object that may affect the navigable airspace.

2. FAA Form 7460-2, Notice of Actual Construction or Alteration, is used to notify the FAA of progress or abandonment, as requested on the form. The FAA regional office routinely includes this form with a determination when such information will be required. The information is used for charting purposes, to change affected aeronautical procedures and to notify pilots of the location of the structure.

14. HOW TO PETITION THE ADMINISTRATOR FOR DISCRETIONARY REVIEW.

a. When a determination is issued under 14 CFR Section 77.19, (except Section 77.19(c)(1)), or Section 77.35 or when a revision or extension is issued under

Section 77.39(c), you may petition the FAA Administrator for a review of the determination, revision, or extension if you:

1. Are the sponsor of the proposed construction or alteration, or

2. Stated a substantial aeronautical objection to the proposal during an aeronautical study, or

3. Have a substantial aeronautical objection but were not given an opportunity to state it.

b. The petition must be submitted within 30 days after the issue date of the determination, revision, or extension and must contain a full statement of the basis upon which it is made. Submit an original and two copies to:

Manager, Airspace and Obstruction Evaluation
 Branch, ATP-240

Federal Aviation Administration
 800 Independence Avenue, SW
 Washington, DC 20591

15. MISCELLANEOUS.

a. An FAA determination is a conclusion based on the study of a structure's projected impact on the safe and efficient use of the navigable airspace by aircraft. It should not be construed as an approval or disapproval of the project.

b. A notice filed with the FAA does not relieve the proponent of compliance with laws, ordinances or regulations of any other Federal, state or local governmental body.

c. The FAA may recommend marking and/or lighting a structure that does not exceed 200 feet AGL or 14 CFR Part 77 Subpart C standards because of its particular location.



L. Lane Speck

Program Director for Air Traffic Rules and Procedures

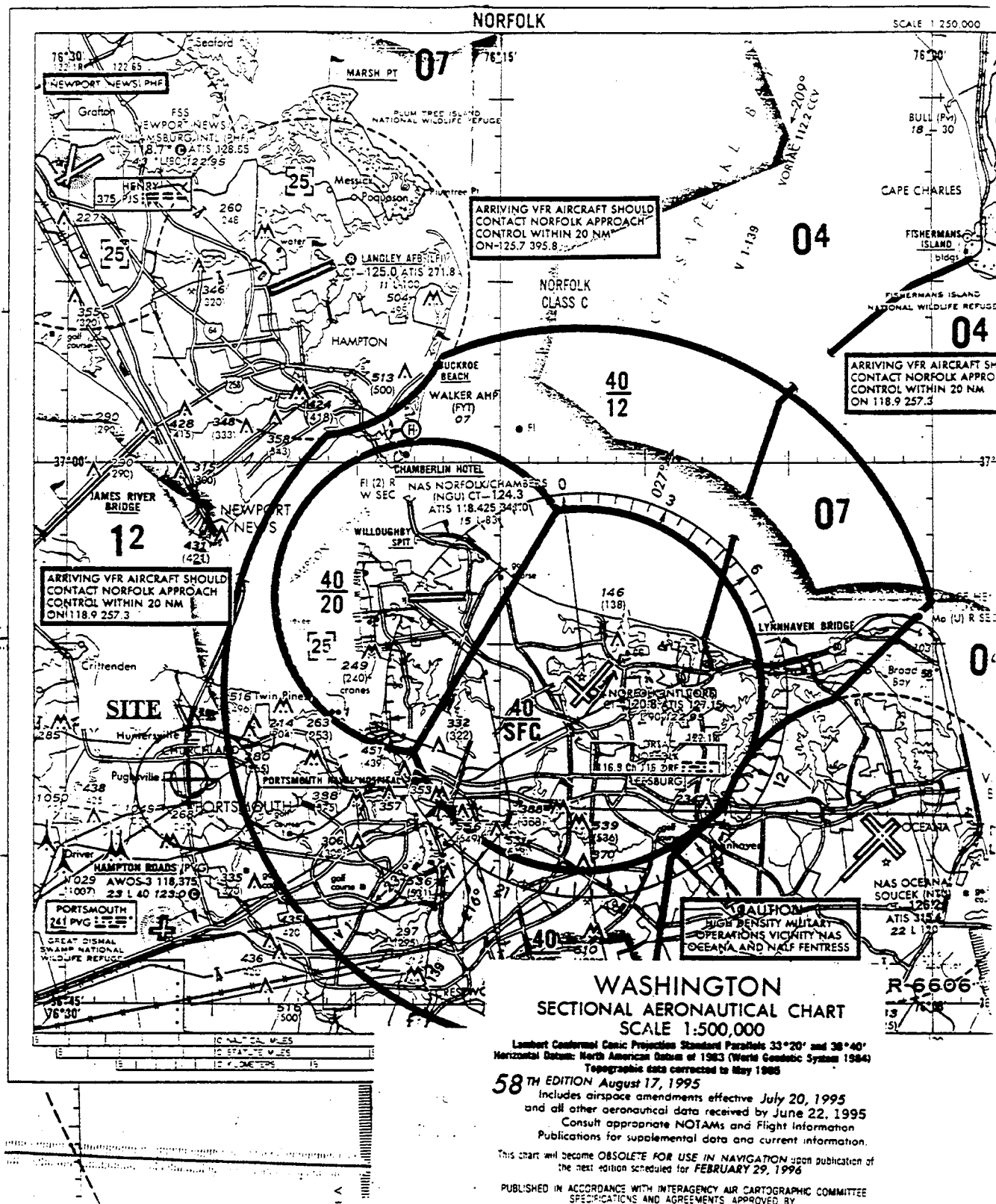
APPENDIX 1. SAMPLE NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION, FAA FORM 7460-1

Please Type or Print on This Form

Form Approved OMB NO. 2120-0001

Notice of Proposed Construction or Alteration <small>U.S. Department of Transportation Federal Aviation Administration</small>		<small>Aeronautical Study Number</small> _____	
1. Nature of Proposal A. Type <input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Alteration * B. Class <input checked="" type="checkbox"/> Permanent <input type="checkbox"/> Temporary (Duration _____ months) C. Work Schedule Dates Beginning <u>1/15/95</u> End <u>3/15/95</u> * If Alteration, provide previous FAA Aeronautical Study Number, if available: _____		2. Complete Description of Structure Please describe the proposed construction or alteration. A. For proposals involving transmitting stations, include effective radiated power (ERP) and assigned frequency. If not known, give frequency band and maximum ERP. B. For proposals involving overhead wire, transmission lines, etc., include the size and the configuration of the wires and their supporting structures. C. For buildings, include site orientation, dimensions, and construction materials. D. Optional — Describe the type of obstruction marking and lighting system desired. The FAA will consider this in their study. <div style="text-align: center;"> Antenna Tower 159-160 MHz & 806-826 MHz 250 Watts </div>	
3A. Name, address, and telephone number of individual, company corporation, etc. proposing the construction or alteration. (Number, Street, City, State, and Zip Code) <div style="text-align: center;"> J. P. Enterprises P.O. Box 12345 Washington, DC 20001 (202) 555-1234 <small>Area Code Telephone Number</small> </div>		3B. Name, address and telephone number of proponent's representative, if different than 3A. above. <div style="text-align: center;"> <small>(Area Code) Telephone Number</small> </div>	
4. Location Of Structure A. Coordinates (to hundreds of seconds, if known) Latitude 0 36 51 08 Longitude 0 76 25 58 4D. Source for item 4A data. <input checked="" type="checkbox"/> USGS 7.5' Quad Chart <input type="checkbox"/> Survey <input type="checkbox"/> Other Specify _____ Indicate the reference datum: <input type="checkbox"/> NAD 27 <input checked="" type="checkbox"/> NAD 83 <input type="checkbox"/> Other Specify _____ B. Nearest City or Town and State <u>Chesapeake, VA</u> (1). Distance to 4B <u>2.5</u> (2). Direction to 4B <u>South</u> C. Nearest public or military airport, heliport, flightpark, or seaplane base <u>Hampton Roads</u> (1). Distance from structure to nearest point of nearest runway <u>4.5</u> (2). Direction from structure to airport <u>Southwest</u> 4E. Description of site location with respect to highways, street, airports, prominent terrain, features, existing structures, etc. Please attach a U.S. Geological Survey Map (or equivalent) showing the construction site. If available, attach a copy of a documented site survey with the surveyor's certification. <u>Adjacent to Highway 664</u>		5. Height and Elevation (to nearest foot) A. Elevation of ground above mean sea level. <u>22</u> B. Height of structure including all appurtenances and lighting above ground or water. <u>527</u> C. Overall height above mean sea level <u>549</u>	
<small>Notice is required by Part 77 of the Federal Aviation Regulations (14 C.F.R. Part 77) pursuant to Section 1101 of the Federal Aviation Act of 1958, as amended (49 U.S.C. app. § 1501). Persons who knowingly and willfully violate the Notice requirements of Part 77 are subject to a civil penalty of \$1,000 per day until the notice is received, pursuant to Section 901(a) of the Federal Aviation Act of 1958, as amended (49 U.S.C. app. § 1471(a)) as well as the fine (criminal penalty) of not more than \$500 for the first offense and not more than \$2,000 for subsequent offenses, pursuant to Section 902(a) of the Federal Aviation Act of 1958, as amended (49 U.S.C. app. § 1472(a)).</small>			
I HEREBY CERTIFY that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to obstruction mark and/or light the structure in accordance with established marking & lighting standards as necessary.			
Date <u>11-15-95</u>		Typed or Printed Name and Title of Person Filing Notice <u>James A. Peoples</u>	
Signature 		Signature 	
FOR FAA USE ONLY		FAA will either return this form or issue a separate acknowledgement.	
The Proposal: <input type="checkbox"/> Does not require a notice to FAA. <input type="checkbox"/> Is not identified as an obstruction under any standard of FAR, Part 77, Subpart C, and would not be a hazard to air navigation. <input type="checkbox"/> Is identified as an obstruction under the standards of FAR, Part 77, Subpart C, but would not be a hazard to air navigation. <input type="checkbox"/> Should be obstruction marked <input type="checkbox"/> lighted per FAA Advisory Circular 70/7460-1, Chapter 1. <input type="checkbox"/> Obstruction marking and lighting are not necessary.		Supplemental Notice of Construction, FAA Form 7460-2, is required any time the project is abandoned, or: <input type="checkbox"/> At least 48 hours before the start of construction. <input type="checkbox"/> Within five days after the construction reaches its greatest height. This determination expires on _____ unless: (a) extended, revised or terminated by the issuing office; (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit is made to the FCC on or before the above expiration date. In such cases the determination expires on the date prescribed by the FCC for completion of construction, or on the date the FCC denies the application. NOTE: Request for extension of the effective period of this determination must be postmarked or delivered to the issuing office at least 15 days prior to the expiration date. If the structure is subject to the licensing authority of the FCC, a copy of this determination will be sent to that agency.	
Remarks:			
NAD 83 Coordinates (Use these coordinates for any future correspondence with the FAA) Latitude _____ Longitude _____		Issued in _____ Signature _____ Date _____	

Appendix 1



BOWERS HILL QUADRANGLE
VIRGINIA
7.5 MINUTE SERIES (TOPOGRAPHIC)

COMMONWEALTH OF VIRGINIA
DIVISION OF MINERAL RESOURCES



